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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,324	11/17/2003	Peter John Hunt	1171/41475/56B/106/107	5106
279	7590	08/08/2005	EXAMINER	
TREXLER, BUSHNELL, GIANGIORGI, BLACKSTONE & MARR, LTD. 105 WEST ADAMS STREET SUITE 3600 CHICAGO, IL 60603			PAIK, SANG YEOP	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/715,324

Applicant(s)

HUNT ET AL.

Examiner

Sang Y. Paik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-14, 16-29, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 10 and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 10 and 11 have not been further treated on the merits.
2. Claims 15 and 19 are objected to because of the following informalities: in claim 15, on line 24, the period (.) should be deleted; and in claim 19, on lines 7 and 8, “or” should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, there is no proper antecedent basis for “said indication of the external temperature”.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6 Claims 1, 2, 16, 17, 18, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniell et al (US 5,558,084).

Daniell shows the breathing assistance apparatus having an electrical input power to activate a heater capable of humidifying the gas at the desired level, and a controller (11, 16) to determine the parameter such as the temperature of the humidified gas which relates to the flow rate of the gas. The heater includes the conduit heater (10) and the water heater (20), and Daniell further shows an ambient external temperature sensor (45), a humidification chamber (3) having the water heater (20) and a water heater sensor/chamber sensor (8) to monitor the parameter such as the temperature of the water heater, the controller which monitors or regulates the desired heating temperature with the input of the external temperature indicated by the external temperature sensor, a connector means (66) which enable to correctly connect the conduit heater to the controller, and an indicator (67, 62) which indicates proper functions of the apparatus.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-7, 13, 14, 19-23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniell (US 5,558,084).

Daniell shows the apparatus and method claimed except explicitly showing the controller to continuously monitor the claimed parameter and to follow the claimed steps.

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Daniell teaches that the heating elements are controlled in response to the temperature sensors that measure the temperature of the water heater as well as the conduit heater and the ambient temperature. As the temperature falls or arises due to the surrounding conditions, the heaters are further controlled to be turned off or on.

While the Daniel does not shows explicitly show the sequence of the claimed steps, it would have been obvious to provide the controller with such monitoring processes or steps to monitor the changes in the threshold parameter values, including the changes in the temperatures, flow rate, or any other related parameters, so that the power to the water heater as well as the conduit heater can be continuously adjusted to maintain the desired humidity or gas temperature as the they are susceptible to the surrounding elements to affect its efficiency to meet the desired humidified gas.

8. Claims 8, 9, 12, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniell et al (US 5,558,084) in view of McComb (US 5,349,946) or Clementi (US 5,031,612).

Daniell shows the apparatus and method claimed except the gas supply means to supply gas to the humidifier.

McComb shows a gas supply with a flow meter/sensor to supply gas and the processor to determine the desired humidity level at the given flow rate. Clementi also shows a gas supply such as a blower to provide the pressured gas flow to provide the desired humidified gas. In view of McComb or Clementi, it would have been obvious to one of ordinary skill in the art to adapt Daniell with the gas supply means to provide the air source that is humidified for the user and to control the rate at which the air/gas is provided.

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9. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniell in view of McComb or Clementi as applied to claims 8, 9, 12, 24 and 25 above, and further in view of Rapoport et al (US 5,546,933).

Daniell in view of McComb or Clementi, shows the apparatus and method claimed except the gas supply having a fan with the variable speed electric motor.

Rapoport shows a blower having a variable speed blower motor to supply air. In view of Rapoport, it would have been obvious to one of ordinary skill in the art to adapt Daniell, as modified by McComb or Clementi, with the variable speed motor fan to control the amount of gas and the rate at which the gas is supplied.

***Allowable Subject Matter***

10. Claim 15 would be allowed when the informality objected under the claim objection is corrected.

***Response to Arguments***

11. Applicant's arguments filed 5/19/05 have been fully considered but they are not persuasive.

The applicant argues Daniell does not show a parameter relating to the flow rate of gases, and further argues that the temperature of the gas is not a parameter related to the gas flow. This argument is not deemed persuasive since it is well known that the higher the temperature, faster the gas flow would occur. This notion is also supported in the applicant's own remark on page 19, on line 19, that "[t]he greater the amount of power required to raise the gases to a given temperature, the greater the flow rate of gases through the humidifier."

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The applicant argues that Daniell does not disclose the step of continuously monitoring the parameter for changes and controlling the power, and that the Examiner has not provided any support for the obviousness of such step and rather used the hindsight in the rejection. This argument is not deemed persuasive. As stated in the grounds for rejection, the examiner states that while Daniell does not explicitly disclose such steps, Daniell shows the evidence of the continuous monitoring with the example of the heaters being controlled in response to the rise and fall of the related temperatures. This can be done when the parameters including the temperatures are continuously monitored.

The applicant also argues that Daniell does not shows the indicator which shows when the conduit heater is correctly connected. Daniell clearly shows the switch 66 which would connect the conduit heater and the controller. Daniell shows the indicators as the elements 67 and 62 wherein 67 shows the steps the software program that is executed by the processor, and since the connection of switch 66 is executed by the processor, such step would be displayed and furthermore the element 62 which is an audio alarm would be activated when undesirable circumstances or faults occur. This clearly supports the claimed indicator as well as the claimed connector.

The applicant argues that McComb or Clementi does not disclose using a measured of the rate of flow of gas through the apparatus to control the power to the humidifier. It is noted that McComb and Clementi are applied to supplement Daniell, and the combination of such prior art would teach the disclosed use of the measured rate of flow of gas through the apparatus to control the power to the humidifier.

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Claim 29 was mistakenly left out in the rejection in the last office action but is now included.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783.

The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Paik

Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp